

THE
SOUTHERN AGRICULTURIST.

APRIL, 1828.

PART I.
ORIGINAL CORRESPONDENCE.

ART. I.—*An Essay on the Culture of the Grape Vine, and the making of Wine; suited for the United States, and more particularly for the Southern States.* By N. HERBEMONT, of Columbia, S. C.

“And Noah began to be an husbandman, and he planted a vineyard.”—
GENESIS C. IX. V. 20

(Continued from page 106.)

THAT cultivation is as necessary to the Vine, as it is to every vegetable we cultivate, appears so evident, that it may seem useless to prove it. The advantages of it, however, are so fully elucidated in the following ancient anecdote, that I cannot resist the temptation of introducing it here; it is very short:—‘If a Vineyard does not succeed, the fault is in the man, not in the Vine: it will flourish and prosper under a careful and diligent hand; but it will degenerate and run wild under the hand of sloth and idleness. A gentleman of Rome, who took great delight in Vineyards, some of which he had raised with his own hands, wrote a very elegant piece upon the culture of Vines, and in the most pathetic terms, recommends it to the people of Italy, as the most profitable, as well as agreeable and amusing undertaking.’ Among many other encouragements, he tells them this story:—‘Pavilius Veterensis, a neighbour of my uncle, had a Vineyard and two daughters. Upon the marriage of one of them, he gave with her as her dowry,

‘one-third of his Vineyard. He then doubled his diligence, and cultivated the remainder so well, that it yielded him *as much as the whole had done before.* Upon the marriage of the other daughter, he gave with her one other third of his Vineyard; and now having but one-third part of the whole left, he so manured and cultivated it, that it yielded him full as much as the whole had done at first.’

Let us then cultivate our Vineyards with care and assiduity; and, as pruning is one of the most essential parts of it, let us attend to it. Having settled, that it is most prudent not to prune the first winter after planting, unless the plants are uncommonly strong, the object in view is, to procure a vigorous upright shoot intended to have fruit-bearing-wood for the following year; the young Vine must be cut down very near the ground, leaving only one bud to produce the shoot wanted. It must be observed, that in counting the buds, the lowest one of all being a very small one, is not generally included. The bud on which rests the future progress of the Vine, must be nursed and attended to; for, as it will probably put out early, if the late frost should come after it has put out, it will be killed; to prevent which, when there is such an apprehension, it is proper to cover the bud with any thing at hand, that will secure it from the hoar-frost. Filling up the earth carefully, so as to cover it, is a sufficient protection; and when the danger is past, uncover it most carefully; for, in this state, it is very liable to be broken off with a very slight touch. Should this happen, or the young shoot (not having been covered) be frost bitten, do not despair, for the small bud at the foot will put out, and make a good shoot. In this case, the entire bud that has been in the smallest degree affected by the frost, must be entirely suppressed, or else it will make a vain effort to recover, and in so doing, will deprive its substitute of a great part of the nourishment necessary to its welfare. As this shoot grows up, every precaution must be taken that it be not broken off; and, as a greater security, it is best, when it is about a foot or eighteen inches high, to tie it very gently, and without bruising it, to the stake placed close to the root for this purpose. Very soft materials are to be selected, and are to be well soaked in water, to render them very pliant. Rice-straw is the best I have found for this purpose; matting, rye-straw, and bull-rush, answer very well also. When this shoot has been well secured in this

manner, and not till then, suppress any other shoot or sucker that might make its appearance, and allow none of them to grow except the first and principal one, unless the root is extremely strong indeed, and even then, I should much prefer to have only one shoot, and guard it well from accidents. Suffer it to grow as much as it can without suppressing any thing except two or three of the lowest side shoots or inter-leaves, and all the tendrils or claspers as they make their appearance. If, however, you should have time to tie up this prime shoot as it grows up, and as often as it may need it, it is best not to suppress the claspers, which, in this case, will be necessary to support it; but they become useless, when the Vine is properly tied up, and the substance necessary for their formation and maintainance, adds, when they are suppressed, to the supply of food for the other parts of the Vine. This is, I think, one of the few legitimate instances, when we may be allowed to oppose the efforts of nature; for we, in this case, second her design by other means, equally suitable and more appropriate to our convenience and the object we have in view. The suppression of the claspers is, I think, highly proper and more advantageous, than most writers or cultivators seem to be aware of. When they are left, besides consuming the food that may be applied to the other parts of the Vine, they are very apt to catch hold of the young wood, the leaves and the young fruit, entangle and strangle them, and thereby injuring them, by making it much more difficult to spread the young branches as they should be, and to disengage the bunches of grapes from their grasp, either in the course of the cares due to them during their growth, and also at the time of vintage, when they cause a great loss in the fruit, if they have not been suppressed in due time, which is, as soon as they make their appearance. If any of them are at all to be suffered to remain, it is those that come last and near the top of the young growth. If these have been duly tied and trained up, and all the lower tendrils or claspers have been suppressed, so that any that may come after, cannot touch the grapes or any thing near them, they may be allowed to remain, if it be found inconvenient or troublesome to take them off; for, being quite at the top, and out of the reach of the grapes, the injury they may do, is comparatively small, and perhaps not equal to the trouble of suppressing them.

Many writers advise the topping of the growing shoots during the summer, and I believe it is practised in most countries. Others say, that these must be left to grow at full length, and never be shortened. To say that the shortening of the green and growing shoots, is a mode improper and injurious, is not sufficient, it must be proven. Keeping always in mind, that it is not very probable nature would produce long shoots full of leaves, for the sole purpose of being shortened, torn off and mangled, as is most frequently done; but that she must have had some other and better purpose in view; it becomes us to examine the case, and find out what these purposes may be.

It is a common error to suppose, that by the suppression, at random, of a part of a plant, the remainder will and must grow the better. The suppression of any part to have this effect, must be done with a great deal of judgment; otherwise, the effect will be precisely the reverse of what was intended. The object of those who shorten the shoots of the Vine, and suppress, besides, many of the leaves, is to induce the nourishment intended by nature, for the part thus cut off, to pass into the essential parts that remain, and which are generally the objects of the cultivation; viz. the fruit, and also, that many of the leaves being out of the way, the grapes will be more exposed to the sun and air, and thereby ripen the better. As well might we suppose, that an animal will feed the better, if a part of its teeth are pulled out, and that it would thrive the more, if one half of its stomach could be totally suppressed.

At the junction of the leaf stem with the young shoot that produced it, is the bud intended for the following year's growth. This bud is partly surrounded and protected from injury by the spreading foot of this leaf stem. If this leaf is suppressed, particularly at an early period, not only the bud will have lost its protection, but also the food elaborated for it by the leaf. In whatever manner this may be done, certain it is, that such a bud will cease to grow, and will not produce a shoot the following year as it ought to do. On the other hand, suffer the leaf to remain, and shorten the shoot to two or three buds above the fruit, the effect will be, that the buds intended for the following year's growth, and the production of fruit, will, by an effort of nature to regain what has been suppressed, and supply the deficiency of leaves, put out shoots which will generally

produce fruit that will ripen, though indifferently, if the season is long enough. Such a management must necessarily injure the Vines materially, and ought never to be done, except on a single branch of a very vigorous Vine, for the purpose of experiment, and of having a few bunches of grapes later than usual. The effect thus produced, must satisfy any one of the impropriety of these unnatural suppressions; for, although they may not be made sufficiently early, or the growing shoot made so short as to produce the full effect here noticed; yet the damage done must be in proportion to the quantity of the shoot suppressed; and the buds which ought to be dormant till the following spring, may be so swollen and near pushing, as to be exposed to very serious injury, by very severe frost in the winter, besides their being apt to grow too early, and be caught by the late frosts in the spring.

The leaves, branches, and other parts of plants, might, perhaps, be properly considered as each forming a separate plant, the roots of which, form a part of the stem of the plant to which they are attached, and of which they form a component part. The functions of the leaves, moreover, being that of absorbing water and other matters from the atmosphere, to elaborate them, to reject such portions of them as are not suited as food for the plant, and convey the remainder thus purified and prepared, to the flowers and fruits, without which, experience fully shows that they will never acquire the degree of maturity and perfection they are capable of. It is evident, then, when the leaves, or any green part of a plant are suppressed, it must receive only a diminished quantity of its proper nourishment, its health be affected by it, its growth impaired, and its fruit remain in a state of imperfection, which is most certainly the case.

This might be a proper place to introduce a full dissertation on the theory of vegetation, and particularly on the use of the leaves; and recount the many experiments of philosophers, naturalists, and chymists, which show, that during the day the leaves absorb from the atmosphere, the carbonic acid gas floating in it, retain the carbon and reject the oxygen; and on the contrary, during the night, they absorb the oxygen of the atmospheric air itself, and eject it the following day; besides many other experiments, showing the different functions which nature has assigned to the leaves; but these, although most interesting, would carry us too far in a particular essay of this kind.

If the shoots of the Vine are ever to be shortened during the time of their growth, it should not be done till very late in the season, and not then without necessity, which will seldom exist. When, by bad management or accidents, the Vine, while the grapes are in a growing state, has lost a considerable part of its leaves, or the leaves are much impaired in their substance by insects preying upon them, as frequently happens, the fruit ceases to grow, either totally or partially, according to the extent of the injury thus done to the leaves, and it never acquires that saccharine maturity which renders it pleasant and wholesome as food, and alone enables its juice to be converted into good wine.

Not only the direct and immediate action of the rays of the sun on the grapes is not necessary to produce this maturity, but it is most generally injurious, particularly in this climate, by scorching the skin, which occasions the grapes to rot. Grapes will ripen perfectly well, and will acquire their full colour without having the direct rays of the sun to fall upon them. They must not, however, be so completely covered on all sides by thick clusters of leaves, that the circulation of the air is obstructed. All the branches ought to be spread and tied neatly to the frame made for their support; so as the fruit will hang loosely and openly, and have the free benefit of the circulating air. The sun is only properly admitted directly to the grapes, when these are fully ripe, to obtain an evaporation of its watery juices; so as to produce a richer wine which is the practise in some countries; but of this hereafter.

The only work, then, to be done the first and second year after planting a Vineyard with cuttings, is, first:—to keep it clear of grass and weeds during the summer, by shallow ploughing or hoeing, whenever it may be found necessary; to keep the principal shoot neatly tied up to the stakes, and, if any green part is at all suppressed at this time, to do it at the very beginning of its growth. This is to be done very discreetly, if at all. In the fall, to give the ground a good deep ploughing, or which is better, to have it well and deeply spaded all over.

The second year requires no other work or attention, but this latter must be rather increased, as the shoots will be much longer and stronger, they will have more need of being carefully tied up to the stakes. If any unsightly, ill-placed and unnecessary shoot should grow at the lower part, it is

well to suppress it as soon as it appears, so that it may not dispute the precedence in growth with the principal shoot. The following winter, the same ploughing or spading, and the first pruning is to take place, unless some plants have been thought sufficiently large to undergo this operation the first year. Whether or not, they must all now be treated in the same manner, so as to have them all as near as possible on an equality. They must be cut down to one good bud, remembering that the lowest bud of all is not counted. Should a plant be, however, very strong, and have two equally good branches, they might be both left and pruned down to one good bud each. This bud will produce a good strong shoot, which is to give the bearing buds for the third year. This shoot ought, therefore, to be nursed and tied up carefully, suppressing any other shoot that may appear from below as soon as it does appear. Should it happen, however, that this main shoot be not thrifty, and the under shoot promise to be a strong one, I would, in this case, leave them both, and at the following pruning select the better of them and cut off the other.

(*To be continued.*)

ART. II.—*On the Cultivation and High Prices of Sea-Island Cotton; by WILLIAM ELLIOT.*

“Beaufort, November 15, 1827.

To the Editor of the “Southern Agriculturist.”

Dear Sir,—I comply with the request which you have paid me the compliment to make me, more from the desire which I feel to withhold nothing, however unimportant, which may promote the interests of Agriculture, than from any expectation I may entertain of my ability to afford substantial and efficient aid. I have no valuable discoveries in Agriculture to communicate, no information, in fact, which may not be familiar to the observant and experienced Planter. My humbler aim shall be, to instruct the inexperienced, and to fix in some judicious practice, such as are

wandering about in uncertainty among a variety of conflicting systems. If I become tedious, I shall regret it: I mean only to be minute; and, if I convey no instruction to the expert, it is they who can best dispense with it. I shall only add, that I should have held myself fortunate, to have acquired the rules which I here lay down, plain and simple as they appear, in any school less expensive than *that* of experience.

When I speak of the Agriculture of this Parish, (St. Helena,) I confine myself, almost of necessity, to the production of Sea-Island Cotton; for the Parish is composed exclusively of Sea-Islands; and, excepting the provisions produced for plantation supply, and some small quantity of Palma-Christi, grown and manufactured within ourselves, the only staple cultivated, is that to which our insular situation and salt exposure give us peculiar aptitude. I shall detail to you, therefore, our method of cultivating and preparing the Sea-Island Cotton—which, while it furnishes some hints to the uninstructed Planter, may be useful, likewise, as a matter of *record* and of *comparison*.

The judicious Planter, whose plantation affords him the opportunity of choice, will select for his Cotton field, such high lands of a light brown or yellow complexion, as were covered by an original growth of hickory, laurel, and red bay, interspersed with the live and white oaks, and the towering palmetto. He lays out his fields into squares, of one-fourth of an acre, (105 feet,) and in the winter months, proceeds to list in the sward, with its cover of fennel or grass. On this *list*, the *bed* is subsequently raised; and, if the ground has lain fallow for some years, or if the soil be naturally close, the plough is sometimes run through the intervals, to pulverize it, and facilitate the process of bedding, which is always performed by the hoe, and usually commences about the middle of March. The beds are commonly five feet from centre to centre. The planting begins about the 20th of March, and extends to the 20th of April, and is thus performed:—A number of holes, four inches deep and twelve inches long, are cut by the hoe on the top of the bed, leaving the space of one foot between each hole. The seed which is changed every second year, is rayed and carefully cleansed of such as are *coated* or *tufted with green*, (that being considered an indication of degene-

racy,)* and then plentifully dropped and carefully covered. When the plant has attained its fourth or sixth leaf, if no grass should threaten it sooner, it is *hoed down*, which is effected by cutting the bed nicely down, and drawing the earth into the centre of the alley, in the shape of a small list. A fortnight after, or sooner, if the plants show the want of it, the earth is drawn to their roots, and they are slightly thinned.

At every subsequent working, which, after the first, is invariably a hauling or drawing up the earth to the plants, they are gradually thinned till June, when careful hands are selected to give the final thinning. This is a nice point, on which nothing like uniformity of practice prevails. In high lands, whose fertility has been impaired by frequent cropping, as many as one hundred and twenty stalks may be left in a task row, (105 feet.) In newer, stronger, or lower lands, where the growth of the plants is increased, the number must be proportionably diminished.

The plants are hauled, whenever the growth is checked by drought or threatened by grass, *until the middle of July*, beyond which period, it is unsafe to haul the earth to any fields but such as have been planted late in the season. Crops, otherwise good, have been lost for want of this ingle precaution; for the stimulus supplied by this late culture, added to that communicated to the plant by the excessive rains incident to this season, produces an excessive flow of sap, and consequent new growth at a time when it is essential that its powers should be confined to the perfecting and maturing of its fruit. In fixing on the middle of July as the period, beyond which the culture should not extend—the intelligent Planter will readily perceive, that the rule is not meant to be absolute, but must bend, in some degree, to the irregularity of the seasons; that in a season like the last, wherein an excessively dry spring retarded at once the growth of the Cotton and of the grass;—a rigid adherence to the rule, might have proved as injurious as the neglect of it, in the opposite season of 1825.

Though I believe there is but little which is peculiar in our mode of gathering and preparing the crop, I shall,

* This opinion, which was founded on the very natural supposition, that the plants bearing the coated seed, were an approach to the green seed, or short staple, has been seriously shaken, by the recent discovery, that some of the finest and most silky fibres, were the produce of the coated seed.

nevertheless, briefly state them, for the reasons before assigned. We gather it as soon as possible after it has burst the pod, that it may avoid injury as well from dirt, as from too much exposure to the sun. Women and boys prove the most efficient pickers. The greatest care is used by them to separate from the Cotton, all dried leaves or other substances that may impair or discolour the staple. It is then spread, if wet, on a scaffold, and exposed to the sun; but, if gathered in dry weather, *on the floor of the house,** to suffer whatever moisture it has imbibed to escape, before it is stowed away in bulk. It is then passed once through a patent whipper, (M'Birnie's,) and sorted in the seed, at the rate of one to two hundred pounds to the hand. It is now ready for the gin. Eave's was formerly in successful use; but that, as well as the barrel gin, has been superceded by the common foot or crank gin, whose extreme simplicity of structure has given it an advantage over others more efficient, but more complicated. The rollers most in vogue, are those of seasoned oak; and thirty pounds of clean Cotton as a day's labour, are easily turned out to each gin. It is then moted, often, but not always, on frames of wire or latticed wood, at a rate varying from fifteen to thirty pounds to the hand, and is then packed and ready for market.

The modes of growth and preparation here detailed, are, in some particulars, of very recent adoption; and I wish to remark, once for all, that I give them as the *prevailing*,† but not the *invariable* practice of our most intelligent Planters; for there is scarcely a point in the whole process, which is not disputed with some show of plausibility. Without particularising, however, these departures, or the reasons urged in their defence, I shall turn to the consideration of a question, which it is of a paramount importance that a Sea-Island Planter should examine and understand; viz.

* This is a recent practice—the old rule was, to spread the Cotton, wet or dry, on a scaffold, exposed to the sun for one or more days before it was put away. It is more than suspected, that the sunning injures the staple.

† I make one exception—it is in the recommendation to hoe down, in the first working, which is not the *prevailing* practice; but I have adopted it, from an experience of its advantages. This operation is so fatal to a successful culture, when adopted after the plant has begun to bear, that it has been abandoned as unfit in all stages; and so I thought, until convinced to the contrary by experiment. The advantage you gain, is, that by this process, you effectually destroy the first crop of grass, which is but imperfectly accomplished by the side hoeing or hauling, while the young plant shoots its roots deeply into the earth, to start more vigorously when the earth is hauled to it.

“what is the cause of the difference of price given for Cotton, grown even on adjoining plantations?” Formerly a difference of a few cents in the pound, was considered as equivalent to any difference of value between the product of contiguous lands; and such a difference was, in truth, no adequate compensation for the extraordinary labour and expense incurred by the careful cultivator; but latterly, the range of price has baffled all calculation, and has extended to such a pitch, that a favoured Planter has been known to obtain for his crop, *five times the price* obtained by his immediate neighbour. Is this difference real or imaginary? If real, whence has it arisen? It would be amusing, if it were not a matter too serious for jest, to note all the shifting opinions of purchasers and factors to account for what remains yet unexplained, and the unavailing efforts of the Planters, to possess themselves of this treasure, which, enjoyed by a chosen few, seem constantly to mock their efforts and elude their grasp. At first, we were told by the factors, “that our Cotton was too much handled—that the buyers and spinners liked to see it in its natural flakes, unbroken by fingers or whipping jennies.” Very well Gentlemen, thought the Planters—nothing can suit us better; we will manufacture as little as you please, and send it to you in the seed, if such be your liking. But the ‘original flakes’ did not take, and we were next year told—“now you handle the article too little; you must clean it better.” Obedient Yamen answered, Amen! and did as he was bid. Nevertheless, A continued to get fifty cents a pound, while his neighbour B got but twenty-five. “Now the secret is out, said the Factors;—it is not that A’s staple is so much superior to B’s—but A makes two hundred bales a-year, while B makes fifty only; and, as it costs the foreign manufacturer some expense to adapt his machinery to such fine fabrics, he prefers buying A’s, whose fineness and uniformity he knows, at an extra price, to purchasing B’s, whose value he does not know, at the ordinary market standard. There’s no help for that thinks B—but the rich must even become richer, and the poor, poorer!” But this discouraging theory received a mortal blow, in the discovery made shortly after its announcement, that X, Y, and Z, Planters of small capital, had obtained the same high prices as A; and now it is remarked, that these new inheritors of fortune’s favours have similar locations—enjoy like exposure to salt atmos-

phere, and it is argued, that in such favoured spots only, can this staple of peculiar fineness be produced. This theory too, was no sooner announced, than it had to encounter facts, which were scarcely reconcilable with its correctness; for it was seen that A, (whose wealth had been increasing in the compound ratio of his own rise and his neighbours' decline,) had no sooner bought out those neighbours', whose Cotton would sell for nothing, and placed his *brand* on them, than they rose to the highest value! It could, therefore, no longer be pretended, that it was identity of staple which communicated to the cottons of A, their extraordinary value, grown as they were on different plantations, dissimilar in soil and exposure, and separated from each other by miles of distance; nor could it be allowed in a country so little given to credulity as this, that the lands changed qualities with their title, or that the sea air, which imparted excellence to this newly acquired soil, could pass over the intermediate fields without communicating any of its virtues, reserving them miraculously for this. Yet those intermediate fields, in the hands of less fortunate proprietors, produced a cotton, which sold in our own markets, at twenty and twenty-five cents; while the newly acquired land, before, as undistinguished, was no sooner touched by the talisman of A, than its product was valued at forty-five and fifty. A circumstance like this, was matter of no little embarrassment to the Planter, who was required either to believe in this standing miracle, or to assent to what seemed nearly as wonderful, viz.; that the foreign agent, whose powers of calculation he had so often felt, should choose to buy Cottons in market, at double their fair market value; when equivalent ones, with no difference but the brand on the outside, could be had for half the money. This has been matter of astonishment to the great body of Sea-Island Planters, though unquestionably it forms no just ground for complaint; for the *money* of the purchaser is his own, and he has as undoubted a right to *pay* for his fancy as to indulge it.

Yet it must be confessed, that this unsettled state of things accompanied by its apparent system of favoritism, has a most discouraging effect on the Planters. When they who enjoy equal advantages, as to salt exposure, practice equal assiduity in the application of salt manures, bestow equal care on the preparation of their staple, find that all these ad-

vantages and this care go for nothing—that the extra expense incurred by their superior preparation, was equal to ten or twelve cents per pound—while one or two cents advance on the average price, was all their compensation; that the money thus unprofitably expended by the majority of growers, went to the exclusive profit of the foreign agent or manufacturer; while here and there some solitary, envied Planter, received a disproportionate reward for his labours. When these things are considered, it is not to be wondered at, that they are discouraged, and that they are ready to substitute any other culture which may offer to industry and skill, a competent and an equal remuneration. For, if the high rate of valuation, at which their lands and negroes have been acquired, whether inherited or purchased, be taken into the account, it will be confessed, that few investments of capital have yielded for the last ten years so trifling a return, as that of the Sea-Island Planters. The *prices* have never been high, but when the crops were short; and, whenever a full crop has crowned the wishes of the Planter, the price was sure to fall by anticipation.

Hence it is, that we witness the overthrow of many large Planters, whose estates were unhappily involved, and the utter ruin of all the less opulent, whose expenses were not modelled after the strictest rules of economy. Hence, too, the difficulty of relieving estates by the sale or transfer of a part; and hence, a depreciation of property, not equalled since the war of 1813.

But I digress. I meant to inquire, on what foundation rested the diversity of price which had arisen, and which made, between immediate neighbours, the difference between want, and excessive wealth? and here I maintain, that, amidst all this seeming confusion, this diversity of opinions, and contradiction of facts, there are some leading principles to be gathered; among which, the first in importance is;—“That where all other advantages are equally distributed, the fineness of the staple is in the direct ratio of the exposure to salt atmosphere.” I know that the many exceptions to this rule, as considered by the sales, have induced some of our distinguished Planters, to deny this position, which they hold to be contradicted by the following facts:—that the main lands, lying within the Sea-Islands, do often produce a Cotton undistinguishable by the buyers, from the finest Island Cottons:—that the crops of some of the Island

Planters, lying, comparatively speaking, remote from the sea, do, every year, sell for higher rates, than those of others lying sea-ward of them; that, even in the European markets, the Cottons produced at Black Swamp, St. Peter's, thirty miles removed from the salt air, have sold higher than the Cottons of the same Planter from the Sea-Island! If these are reasons for doubting our theory, it will be seen, that the reasons in support of it are stronger and less liable to be explained away. And here I maintain, that every candid objector would himself admit it, if he would consent to discard from his view all particular cases, (the exceptions merely to the rule,) and look to the general result. Where do *they* plant, would I ask, who get the highest prices? Where they, who get the next in degree? and, where they, whose Cotton has sunk into an acknowledged inferiority? Let me suppose, for the sake of illustration, a line running through our State, parallel to the sea coast, and distant from it fifty miles. From this line, draw a number of other lines down to the sea coast, intersecting it at right angles. Let the point of intersection be termed A; let the middle of the line, where the arms of the sea and the salt atmosphere terminate be known as B, and let C represent the other end, fifty miles in the interior by supposition. Now, I ask of any candid objector, to select any one of these lines, and answer the inquiry—Where is the *most* profitable culture of the Sea-Island Cotton? Where next, at what point least? Let him select another and another, and the result will ever be the same. When we find this staple of peculiar fineness, cultivated to the exclusion of all others, on the immediate sea-board; still cultivated, though less profitably and exclusively at the medium point; and disappearing entirely from culture, at the other extreme of the supposed line—is it not conclusive, in an enlightened age, among an intelligent people, where happily no compulsory investments of capital are yet legalized; that this staple is *then* not produced in perfection, and cannot, therefore, be profitably cultivated? Why, otherwise being the most valuable is the culture abandoned? Why, otherwise, is there an inferior staple substituted? The common sense of the community then, must be presumed to have settled the question;—that, at the distance of fifty miles, (which we assume not as correct in every possible case, but sufficiently so for the purposes of this argument,) there exists some deficiency or de-

fect relatively to this culture, *not* felt on the immediate sea-board; and that defect most obviously is the want of a salt atmosphere. Now, if salt, or salt atmosphere, be necessary to the perfection of this plant, the less that atmosphere is felt, the more will that plant and its product partake of degeneracy. For that reason, the plant at B, will be inferior to that at A, and superior, for the same reason, to that grown at or near C; and this, notwithstanding the ingenious reasonings I have heard urged against the doctrine, is the unprejudiced opinion of the Planters at B; for, while they steadily contend that they have salt enough to produce any possible fineness, that the preference given to staples grown betwixt them and the ocean, is, therefore, arbitrary and absurd. Yet, they are never known to deny, that they themselves, in their *limited access to salt atmosphere*, enjoy a positive and substantial advantage over the unfortunate Planters who lie between them and the point of disappearance!!

But the difficulty recurs; how are the departures from the rule to be accounted for? Why is not the price in exact proportion to the salt exposure? Why, when the location is given, cannot the value of the staple be at once determined? It must be premised, in answer to these queries, that many apparent departures from the rule, are not such in reality; that the direct distance from the sea is no invariable standard of the proportion of sea atmosphere, enjoyed in any given location; that, being dependent in a material degree on the exposure, and on the number and magnitude of the arms of the sea that surround it. It is admitted too, that where the sea atmosphere is equally distributed, a superiority of staple may yet be imparted by a salter soil, by the cultivation of marsh land; by the application of salt marsh mud, or other saline manures to high land; these being but so many modes of increasing, artificially, that atmosphere in which the plant delights. Nor shall I deny, that a careful selection of seed will have a decided influence in giving *fineness* to the staple, which a skilful preparation may preserve, though it could not produce it. These several causes may so combine, as to equalize the value of a staple grown some miles from the immediate sea-board, with that washed by the ocean itself. But I admit no more; for, where these advantages, natural and acquired, are shared in equal degree, I do not, and cannot believe in the exist-

ence of any such difference, as will leave the staple of one Planter undistinguished, and elevate another to the highest ranks among the fancy names. Where such an unmeasured distinction exists, I am bound to ascribe it, either to the ignorance of the purchaser, who buys and rejects without skill or rule; or to the strictness of his instructions, which do not allow him the free exercise of his judgment, compelling him to offer a prescribed price for certain staples already known; and restricting him from offering any thing beyond the average price, for others, however fine, whose reputation has not yet been established with the foreign house. If there are difficulties yet remaining, and not fairly explained away by what has been urged, I leave them as they are, and ask of all objectors, to account for the stronger and more numerous difficulties that attend the opposite theory. The facts are, that sometimes, but rarely, a Planter at B, by good fortune or good preparation, has sold his crop for a higher rate than his neighbours sea-ward of him. The antagonist facts are, that, for a series of years, not one only, but many of the sea-shore Planters, have sold their crops for more than these same Planters, and at a higher rate than the Planters at B (any of them) have ever reached! Where then lies the weight of testimony? For one witness testifying to a fact, in support of a certain conclusion, I can produce many witnesses testifying to a stronger fact, to support an opposite conclusion. If they rely on the sale of a solitary Planter at B for fifty cents, when the average price was forty—I reply to it, by pointing to twenty Planters at A, who sold at the same time at sixty and seventy and a hundred. I consider the position then, with which I set out, as conclusively proved; nor can I think the discussion idle, when I reflect that the doctrine herein maintained, is rather a floating opinion in the minds of the majority of Planters, than a settled conviction; that the contrary notion is held by men of great ingenuity, and is still acted on, to their great detriment by numerous Planters, who, being settled on unfavourable locations, spend their lives in vain endeavours to force or counteract nature; struggling to impart to their staple, intrinsically defective, a value of which it is unsusceptible. It would startle the inquirer who would sit down to calculate the waste of labour and the loss of capital incurred by the Planters, from an ignorance or neglect of this principle. They have laboured for years,—

have expended eight or ten cents per pound on *extra* preparation, I have never received the shadow of remuneration. The loss of capital has been theirs—the profit has gone exclusively to the foreign purchaser and manufacturer, who have obtained a superior commodity without any corresponding advance of price. Had the foreigners acted through concert and common understanding, (which they evidently have not,) they could not have devised a state of things more favourable to themselves—more injurious to the Planter; for, the extraordinary prices given to a *few* Planters, have stimulated an universal effort among the less favoured to share in their good fortune; and, as the preparation of the article was held by most, and still is, by some, to be the secret of its value: that preparation has been improved eight or ten cents per pound, but the requisite fineness being wanting, the sums thus expended on extra preparation have never been repaid to the Planter in the price of the commodity, and amount, therefore, to a total loss.

To all those cultivators of long staple Cotton, whose location is unfortunately remote from salt atmosphere and salt manures, I would say—abandon the culture, if your plantations offered facilities for any other: or confine your attention to the quantity of your crop, instead of the fineness, giving no more care to the preparation than is sufficient to present it in a clean state at market. To the Vanderhorsts,' Seabrooks,' Mathewes,' Coffins,' and Popes,' and others of that fortunate class, whose names give title to the highest prices in the agricultural lottery, I offer no advice. But, to the majority of Planters cultivating the Sea-Islands, or points of the main land, inclosed by the arms of the sea, the debatable lands, as it were, of the culture, I would say, persevere yet a while in your efforts to approach the standard of these favoured names:—if that be, from physical causes impossible, hope yet longer, that, what happens in all other pursuits, will eventually happen in your's; viz. that a *gradation of prices may be established*, and that your Cotton may meet the common justice, to be rated according to its fineness and cleanness, and not continue to be classed, as heretofore, with the meanest, if it did not happen to equal the best. To such, as undismayed by former disappointment, and disposed not to abandon, in despair, their hope of success, I would suggest the following in-

structions;—to prepare *their salt marsh land* (where capable of a safe embankment,) as the most certain mode of procuring a *very fine staple*. This result is too well established for further question, though, from the great uncertainty of the product, and the liability to failure, even with the fairest early promise, such land is too hazardous to become the sole dependance of the Planter.* Where the salt marsh land is deemed too hazardous, the salt mud, the salt marsh grass cut green, (or in its drift state, saturated with salt water,) and applied to the high lands, are excellent manures, and have the ascertained effect of giving fineness to the fibre, as well as increasing the product. Finally, I would recommend, that the seed reserved from planting, should be that grown on salt marsh, or on high land dressed with salt manures; and that from this stock, a selection be made of such as are slightly coated at the small end with a green or yellow tuft. This recommendation is a departure I am aware, from the invariable practice of the parish, which was, to ray off and reject the coated seed, and plant the clean bright black seed. Recent observation has convinced me of our error; for the finest and most beautiful Cottons I have ever examined, were the product of seed distinguishable by a pale yellow tuft.

In conclusion, Sir, I have to repeat, that the recommendations here given, may happen to be known, or to be unimportant; but they are honestly given, according to my best judgment. I have written in the frank and unreserved spirit that I trust will ever characterize the Southern Planter; preferring the risk of tediousness, to the imputation of reserving for my private advantage, any hint, suggestion, or information whatever, calculated to advance that great interest, which is the basis of all Southern prosperity. If I am wrong, I shall rejoice to be better instructed—and, to each intelligent Planter who may read these remarks, I address

* That this is no needless caution, let facts speak. I planted, during the present season, nine acres of reclaimed marsh land, whose change of growth indicated that it was sufficiently freshened. The plants grew well till the drought in May, when they perished to a stalk! for, *such a season*, the land was too salt. Another instance—I planted a salt cove that separated two islands; the cove, with its margins, was five acres. Half an acre perished early, from excess of salt—from the remainder, four hundred weight of Cotton in the seed, is the entire production up to this date, 15th Nov. It will hence appear, that a Planter *may* cultivate marsh land to his loss, even were he certain of receiving a dollar per pound for the product!!

myself in the language of Horace—"Si quid novisti rectius istis, candidus, imperti—Si non, his utere mecum."

With sentiments of esteem, I am, dear Sir, your obedient humble servant,

WILLIAM ELLIOTT.

ART. III.—*On Root Potatoes; by a Correspondent.*

"Beaufort District, December 1, 1827.

Dear Sir,—Your letter of the 22nd Nov. was received a few days ago, in which you request me to communicate any information in my power "on the subject of Root Potatoes—the experiments I have made—the best manure for them—and the method of preserving them." I never did raise a good crop, and sometimes even wanted vines for planting slips, until I adopted the management of two of my neighbours, since which, I have been uniformly successful. From tasks particularly manured, I have made at the rate of 350 bushels per acre. I confine myself to the "Yam," because it was obvious to me, the red potatoe required a very peculiar soil, which I had not, and could no where be made as valuable a crop.

I select the highest and warmest soil; if possible, it should have been fallow for one or two years—the cow pens should be passed over as much of it as possible. I found 50 head manured a pen sufficiently, of a task in extent, in ten or twelve days. The balance of the land required, I manured with Cotton seed, spread on the list before bedding; half a bushel to the task row would answer tolerably, but a bushel basket full, would be better, as manure for roots is absolutely requisite, and I have never found the land *too rich*, this seed having been always housed, comes up very thickly, and thus opens the soil which is advantageous, and is then soon destroyed by the hoe:—my rows are, as usual, five feet apart, and I bed very heavily;—I never cut the seed—I plant them about three inches deep, leaving a space between each, in the trench, of three inches, and see that there are no lumps or trash over the potatoe; and, as roots are tedious in coming up, a crust forms on the covering, which

I break carefully the moment I notice a few sprouts coming out of the ground.

I have sometimes been obliged to plant the same land two successive years in roots, but this ought to be avoided, as the second crop is more grassy, and often less productive; and I reject all land poisoned with nut and joint grasses. Well rotted stable manure, and that from the poultry yard, &c. with a mixture too of rich pond earth, would doubtless be good; but those above-mentioned are the best. I commence hoeing them from the 10th to 15th April, and they are regularly hoed every ten days. Many good Planters work any, or all of their hands in roots. I select the nicest worker, and add as much of Cotton or Pumpkins, as make five acres in a body;—this is her steady employment, and the whole is kept like a garden; and the roots laid aside from the 5th to 10th June, by which time, the vines cover the bed entirely. I plant one-eighth of an acre to each taskable worker; commence eating them the first week in September, and they generally last to the 20th Nov. or 1st December.

With respect to preserving them longer, it would be difficult, for they decay much more quickly than the slip potatoe, and I might almost say *useless*; for, on the poorest and most worn land I have, I raise as many of the latter as I can in any way consume, and which last to the 15th March, and, in favourable seasons, to the 15th April—after which period, they become watery, and are considered not so good for our slaves, as during the cold months.

This letter has exceeded the length I expected, but I beg you to consider the most profitable parts of it, as the experience of older and better Planters than, dear Sir, very respectfully, your humble servant,

—M.—

ART. IV.—*Secrets in Cotton Revealed; by an "ENEMY OF SECRETS."*—*First Secret Revealed.*

Mr. Editor,—There are *three secrets* respecting Cotton, which I propose to reveal through the medium of your excellent Journal; provided you have the goodness to admit me there. When this is done, all Cotton growers, (other things being equal,) will be placed on the same ground, as to the *quality* and *price* of their Cotton.

·The *first secret* relates to the *choice of seed*—the *second*, to the *manner of culture*—and the *third*, to the *mode of cleaning*. In this paper I am to reveal the first; the second and third may furnish topics for future papers.

In the common Sea-Island Cotton, there are six different kinds of seeds. 1st, The clear black seed—quality coarse, quantity great. 2nd, The black seed covered with green down—quality better than the first, quantity not so great. 3d, The black seed tipped with deep green down—quality fine, quantity less than the second. 4th, The brown seed covered with brown down—quality silky, quantity small. 5th, The brown seed tipped with brown down—quality superior to the fourth, quantity less. 6th, The brown seed clear, with a small stem projecting at one end—quality superior to any, quantity least of all. The different shades of quality which naturally run into each other, may not, in every instance, be perceived by the common Planter; but, to the microscopic eye of the Cotton merchant, they are apparent. The different qualities of the two extremes, however, must be apparent to the most superficial observer.

In selecting seed for a crop, (for I take it for granted, that every man who means to be a successful Planter, selects his seed,) choose number 1, or the *clear black seed*:—if the object be *quantity*, it will produce more abundantly than any other. If *quality* be the object, take number 6, or the *clear brown seed, with the small stem*; it produces the finest Cotton. But, if the object be *profit*, select number 3, or the *black seed, tipped with deep green*; and number 5, or the *brown seed, tipped with brown down*, and combine them in the proportion of one quart of the latter, number 5, to a bushel of the former, number 3. This combination is necessary to preserve the seed, which will otherwise degenerate. It must also be selected every year, to keep up the quality of the Cotton.

By inserting this in the next number of the "Agriculturist," you will reveal a secret, for which many will tender you their thanks, as they slip into their pockets a *dollar a pound* for their Cotton, and you will also confer a *favour* on your unknown friend,

AN ENEMY OF SECRETS.

ART. V.—*Queries on the Culture of Rice; by WILLIAM WASHINGTON, with Answers, by HUGH ROSE of St. Thomas'.*

We are indebted to Wm. Washington, Esq. for several letters on the subject of the culture of Rice, &c. being Answers, from some of our best practical Planters, to Queries proposed by him to them. We insert in this Number, the Queries, and the Answers of Mr. Hugh Rose, and will continue to publish the others until all are given.—*Ed. So. Agriculturist.*

QUERIES.

“Charleston, August 7, 1827.

Sir,—The present depressed price of Cotton, rendering the culture of that article unprofitable, except in particular situations, it becomes a duty incumbent on every friend to the true interests of the State, to inquire what staple is to succeed it. After all the reflection that I have been enabled to give to this subject, I am induced to believe, that Rice is likely to prove the best succedaneum. As I understand you have been successful in the culture of this grain, I trust I need not make an apology for addressing to you the following Queries.

1st. What preparation do you give your land before you begin to plant?

2d. When do you begin to plant?

3d. Do you select your seed, and how do you know the best seed? Do you prefer seed from the North or South, and how often do you change your seed?

4th. How many rows to the task or quarter of an acre? How many bushels of seed to the acre?

5th. Do you scatter in the trenches, or as it is technically called string plant?

6th. Do you point-flow, and if so, assign the reasons?

7th. How many times do you hoe before you put on the water?

8th. How long do you keep on the water?

9th. If in grass, would you put on the water or not? What do you call a good crop to the acre, or to the hand?

10th. Have you ever ploughed your land whilst the crop was growing? or do you object to it, and why?

11th. Do you keep your land dry all the winter, or do you flow it?

12th. Have you ever used salt or brackish water, and what has been the result? Have you ever used lime on your land, and how do you apply it?

13th. How do you know the best time to cut Rice, and what is the task of a labourer in harvest?

14th. Is there any peculiarity in your preparation of Rice for market?

15th. Have you ever cultivated Guinea Corn as a provision crop, and if so, what do you think of it? Do you ever judge by the roots of the health of your Rice?

16th. Have you ever practised a succession or rotation of crops, and if so, which do you most approve of?

17th. Should the river or creek upon which your lands are situated turn salt from a great drought? what mode of attendance would you pursue? would you take in water before it did turn salt, at a time when the Rice was not in actual want, or would you let the water by? Do you ever hoe your Rice, while your fields are filled with water?

An answer to these queries will oblige your obedient servant,

WILLIAM WASHINGTON.

ANSWERS.

Sir,—Your communication of the 18th ult. was not received from the Post-Office, until the 2nd inst. I should, with pleasure, have replied to your interesting queries at an earlier period. The depressed state of our principal, and heretofore most valuable staple, requires that the best intelligences of our State, should be exerted in establishing facts, that may conduce to the substitution of some article of culture that may compensate many of our Cotton Planters for the unprecedented depression of almost all qualities of Cotton. I concur with you in thinking, that Rice is the best succedaneum that occurs to me at present; and I, with pleasure, give you such information relative to its culture, as I am possessed of. I will reply to your queries in the order in which you have submitted them.

1st. What preparation do you give your land before you begin to plant?

Ans. I cultivate inland swamp, of a strong tenacious blue clay, which I strive to reduce to a good tilth, by ploughing a portion, and always digging what I am unable to plough.

I harrow twice before planting, in as dry a state as is practicable.

2nd. When do you begin to plant?

Ans. My land being cold, I seldom begin to plant before the first week in April, and never earlier than the 25th of March.

3d. Do you select your seed, and how do you know the best? Do you prefer seed from the North or South, and how often do you change your seed?

Ans. With respect to the first question, I reply, that I occasionally change my seed, and procure it from tide swamp, of light and rich soil, not regarding whether it is North or South of me. I judge of seed by its weight, and being free from grains of white and red Rice.

4th. How many rows to the task or quarter of an acre? How many bushels of seed to the acre?

Ans. I plant altogether in half acres, 150 feet square; and, after repeated experiments, to ascertain the distance best adapted to my land, I have determined in favour of 14 inches, and sow two bushels of seed to the acre.

5th. Do you scatter in the trenches, or, as it is technically called string plant?

Ans. I observe a medium between the two, and neither sow very broad or narrow. I have never planted on the string, as it is termed.

6th. Do you point flow, and if so, assign the reasons.

Ans. Being dependent on reserve water, I never have had recourse to the point flowing.

7th. How many times do you hoe before you put on the water?

Ans. I hoe twice, and do not then water, unless a dry state of the land renders it necessary. I am not an advocate for early or long watering. I do not water beyond ten or twelve days, until Rice is in the second joint.

8th. My reply to the last query will answer this also.

9th. If in grass, would you put on the water or not? What do you call a good crop to the acre or to the hand?

Ans. There is much grass that flourishes in water, and unless in a very young state, would not be destroyed. The red and white shank for instance, with other water grasses. If there is a large portion of the crop grassy, I would have recourse to water, as much of the grass would be destroyed. I consider fifty bushels of rough Rice to the acre a fair and good crop on an average, or ten barrels to the hand.

10th. Have you ever ploughed your land whilst the crop was growing, or do you object to it, and why?

Ans. I have ploughed a small portion of my Rice, when I planted the distance of sixteen inches; but I soon discontinued it, as no material advantage resulted from it.

11th. Do you keep your land dry all the winter, or do you flow it?

I keep my land flowed until February, if practicable, for the use of a Reserve Mill.

12th. Have you ever used salt or brackish water, and what has been the result? Have you ever used lime on your land, and what has been the result?

Ans. I have never used salt or brackish water on my land. I have this year limed an acre of Rice, at the rate of twenty-two bushels spread on the land after ploughing, and harrowed in previously to being trenched. I am, at present, ignorant of the result from personal observation, but am informed there is no visible difference in favour of the part limed.

13th. How do you know the best time to cut Rice, and what is the task of a labourer in harvest?

Ans. When three or four of the lower grains are beginning to turn yellow, is, I think, the proper time to begin to cut; and if the Rice stands well up to the hook, three quarters of an acre is a reasonable task in cutting. The tying and carrying to the barn yard must be regulated by distance and other circumstances.

14th. Is there any peculiarity in your preparation of Rice for market?

Ans. I use one of Mr. Lucas's water mills, without any peculiarity as to preparation.

15th. Have you cultivated Guinea corn as a provision crop, and if so, what do you think of it?

Ans. I have never cultivated Guinea corn as an article of provision, but I know that it is very productive on good land, and that negroes are fond of it.

16th. Have you practised a succession or rotation of crops, and if so, which do you most approve of?

Ans. I have not paid much attention to a systematic rotation of crops; but doubtless, very beneficial results would reward the Agriculturist who did.

17th. This question I can give no answer to founded on my own experience.

Permit me to suggest another query, highly important to the interest of the Rice Planter, viz. The most eligible time

of turning off the water, previously to the cutting of Rice? Opinions differ much on the subject, and it is really a desideratum worthy of investigation. It has given me much pleasure to promote the objects of your laudable inquiry. I am respectfully, and with high consideration, Sir, your most obedient servant,

HUGH ROSE.

To WILLIAM WASHINGTON, Esq.

(*To be continued.*)

ART. VI.—*On the Wolf in Cattle.*

Sir,—Being fond of attending to my stock of Cattle, and anxious to improve them, I am glad to get from any one, such information as may be useful.

Having accidentally heard, that horned cattle are much injured by a fly, which deposits its eggs near the back bone; I determined, on my return to the country, in November last, to have mine examined, and ordered two yearlings up, both of which were in a miserable state of poverty. On examining the back, on each side of the ridge of the backbone as directed, innumerable bumps were distinctly felt about the size of the point of the thumb. These bumps show in the middle, a spot of rotten dark skin, which, on removal forms a hole, and on pressing gently, but firmly, the sides of the bumps, a filthy looking thick short grub is ejected.

That these vile grubs are extremely injurious to cattle, cannot be doubted, for, out of the poorest of the two yearlings, upwards of five dozen were taken; and, from the other forty-four. On first setting off, many were destroyed in pressing them out—but practice makes perfect, and we became at last, expert operators.

It is likely that these circumstances are familiar to older Planters; but, I question, whether many are aware of the great number, and of the injurious consequences to cattle of those abominable pests.

I will be obliged to any of your Subscribers, to point out a remedy for the wolf,—a preventative against the fly depositing its eggs,—and to inform me, if it is known, at what season the parent lays its eggs, as well as some description of it.

A NOVICE IN AGRICULTURE.

PART II.

REVIEW.

ART. I.—*A Report accompanied with sundry Letters, on the causes which contribute to the production of fine Sea-Island Cotton; read before the Agricultural Society of St. John's, Colleton, on the 14th March, 1827.* By WHITEMARSH B. SEABROOK, Corresponding Secretary. Published by order of the Society. Charleston. Miller. 8vo. pp. 36. 1827.

(Concluded from page 126.)

We proceed to lay before our readers the remaining letters, contained in this very valuable pamphlet. And, though well convinced that they have already met the eye of most intelligent Planters in the lower country; yet, we feel great satisfaction in occupying our pages with them, as their contents deserve to be known to all, and may be frequently referred to with singular advantage. The following communication from a gentleman as much distinguished for public spirit, and a munificent patronage of all useful institutions, as for success in Agriculture, and consequent affluence, presents a plain practical description of the mode of Cotton planting, which the author has long pursued with such eminent success; and evinces, that a course of culture, not materially differing from the ordinary practice, may be rendered, by skilful management, abundantly productive. And we are led hence, and by our own observation, to the conclusion, that more depends upon a particular attention to all the circumstances and details of the Cotton field, upon unyielding energy in overcoming obstacles, and a nice discrimination in adapting different operations to the several varieties of soil and situation, than upon any new discoveries.

“*Dear Sir,*—In answer to your letter of the 20th of August last, in which you have given me the merit of being one of the growers of fine long Cotton, I must briefly state, that in my experiments on the culture of this valuable staple, I have not been as particular as other gentlemen; relying too much on my soil and situation, and the advantages of manure.

"Question 1st. Is all your Cotton equally fine? I answer no. The Cotton produced at my John's Island plantation, is preferred to that of Edisto; and the Cotton of the latter, to that of Slann's Island. My soil at John's Island is generally grey or dark;—at Edisto, yellow;—and at Slann's Island, a tenaceous loam. I am decidedly of opinion, that grey land produces as fine Cotton as any other soil: however, I believe it is the contiguity to the ocean that renders my Cotton so fine at John's Island.

"2. What manure do you esteem the best, to improve the fineness of the staple? A. Salt mud has the preference to all other manure.

"3. Is your Cotton, which is so distinguished for one quality, remarkable also for the length and strength of its staple, or both? A. I have always been of opinion, that my Cotton at Edisto was longer and stronger than that raised on John's Island.

"4. What has been your average crop for the last five years, and what quantity do you plant to the hand? A. At Edisto, I have averaged about 160 lbs. per acre; and at John's Island, about 120 lbs. I plant three and a half acres to the hand.

"5. Are you very particular in the selection of seed? Which kind do you prefer, the small or the large; the perfectly clean, or that which is a little woolly? A. I have never paid particular attention to the selection of seed. I change my seed every second year.

"6. Have you ever tested the experiment on the difference of the product and quality of Cotton, from seed taken from the bottom, middle, or top of the stalk? A. I have never attended to this subject.

"7. How do you preserve your seed? Is it kept in a confined situation, or in a well ventilated room? A. In a loft or room, in which is a free circulation of air.

"8. In gathering your crop, do you ever pick the wool from those pods, that, from their immaturity, are but imperfectly open? A. I do not.

"9. Do you dry your Cotton in the sun or in the shade. If in the sun, how long? A. I have always been in the habit, until the last year, (and the experiment was very unfavourable,) of drying Cotton in the sun one day, or until the seed could be cracked.

"10. What is your mode of preparation, and what quantity do you clean to the hand per day? A. When my Cotton is well gathered from the field (which I always endeavour to have done), each labourer assort from 150 to 200 lbs. in the seed, after the Cotton has passed through the whipper. I never use the whipper afterwards. The quantity of ginned Cotton daily moted to the hand is 40 lbs. In ginning, from 25 to 30 lbs. is the task.

"11. What is the character of your soil? Is your land high or low, indented with creeks, and how far from the ocean? A

2/250

My land at John's Island, lies immediately on the ocean, with a bold creek running in the rear. At Edisto, it is much indented with creeks.

"I am, dear Sir, with sentiments of respect, your obedient servant,

WILLIAM SEABROOK, Sen.

"WHITEMARSH B. SEABROOK, &c."

We thus perceive that Mr. Seabrook's extensive and very successful experience, has led him to adopt, practically, the following general principles; viz. that the fineness of Cotton is greatly promoted by an exposure to the atmosphere of the ocean—that the grey soil is as well adapted to the finer qualities, as the yellow or sandy—that salt-mud is decidedly the best of all manures—that no other attention to seed is requisite, than frequent changes—and, that the troublesome processes of attempting to gather the Cotton before the pods are fully open, and of drying it wholly in the shade, are unnecessary or injurious.

And it is hardly necessary to add, that, by this mode of planting, rendered effectual by the admirable order and method pursued on his estates, and the skill and energy with which every operation is conducted, Mr. S. has, for a series of years, maintained the highest standing in the Cotton market, both here and in Europe. The Agricultural community is certainly under great obligations to Mr. S. for the readiness with which he has contributed to the stock of publick knowledge—the results of his extensive *practical science and observation*.

The last letter appended to the Report from John R. Mathewes, Esq. possesses, in several respects, a peculiar interest; and contains facts and observations of evident importance and utility, which cannot be too extensively circulated, or too attentively considered. With great pleasure we transcribe it entire.

"*Dear Sir*,—I have to apologize, for not replying earlier to your useful circular. The delay principally arose from want of *data*, to give satisfactory answers to your various queries. I am not aware, that I can throw any new light on the subject of Cotton planting, or on the preparation of the article for market; but, at your solicitation, I cheerfully submit to you, my usual proceedings, in regard to the same.

"Previously to breaking the land with plough or hoe, about 120 cart loads of *salt-mud*, to the acre, are placed in convenient heaps at equal distances; a labourer then chops and scatters it, at the rate of about 50 cart loads per day. After the spreading of the mud, the surface of the field appears to be covered with it. The field is then tracked for listing: upon the track, cowpen or animal manure is spread, at the rate of thirty-one horse-cart loads per acre. The ground is then listed with a plough, drawn by a yoke of oxen, which partially turns in the mud, under the list, and covers the cowpen manure; it is then bedded, either with the plough or hoe, in the usual manner. If the plough is used both for listing and bedding, a portion of the mud will be placed under the list, and another portion above it; which is the best mode of disposing of the manure, to give support to a needy soil.

"I commence planting about the 25th of March. The seed, without selection or preparation, is planted in hills, about twelve inches apart, or in the drill, as inclination suggests. The foregoing remarks, apply to a tract of poor, high, light land, on which I reside, on Edisto Island.

"My crops, until lately, have not been abundant, owing to the difficulties I have had to contend with in fertilizing a poor soil at one plantation, and in reclaiming a swamp at the other. I usually plant four acres of Cotton to the hand.

"I consider salt-mud, as manure, highly valuable; it has a powerful tendency to increase the production of the Cotton plant; to hasten its maturity, and to make the fibre stronger and finer; it also gives consistency and strength to light, weak soils.

"On my plantations, no particular plan has been adopted to preserve the seed, intended for planting, with the exception of cautiously preventing its exposure to moisture.

"About a bushel of seed was carefully selected one year, by dividing the pods of Cotton as they were gathered so as to separate the top from the bottom; the seed thus obtained, was planted the following season, but the experiment failed, in consequence of a severe gale, and unusually cold weather destroying amajority of the plants when young.

"The Cotton has been always dried in the sun, until last year, when it became the fashion to dry it in the shade. I am, however, of the opinion, that it is more judicious to give it a few hours sunning before it is stowed in the Cotton house.

"I finish thinning by the 15th of June, if possible, and hoeing about the 15th July; between these dates, one hauling, or two at farthest, are fully sufficient. Cotton plants are much injured by too much nursing with the hoe. To keep down the grass, and thin early, are of primary importance. The bed should be kept very firm, to prevent, as much as practicable, heavy rains from

penetrating it, and to assist it in retaining moisture during a drought. Hauling gives the plant fresh growth, as often as repeated, and, therefore, when resorted to late in the season, proper for hoeing, it has a tendency to cause disease in the *fruit*, or to make it drop at each repetition. The bed should be hoed, by drawing the hoe obliquely from the alley to the top, and the grass carefully shook off by hand.

"In gathering the crop, no selection of Cotton or seed was made, until the year 1826.

"My Cotton is not all equally fine, neither can any Cottons, correctly, be deemed so. It is now ascertained beyond all doubt, that the finer qualities of this valuable article are fast disappearing from us. In a letter to me, from a very sensible and wealthy spinner, in Manchester, the following observations are made:—"Some years ago, we readily found among the Cottons of different Planters, a sufficient number of bags to spin all the fine yarns that were required; at the present period, when the consumption of fine yarns is doubled, we do not find, among all the Cottons we examine, one bag per annum." This deterioration of our Cottons appears natural, when we reflect, that the same effect is produced in our gardens and orchards, unless yearly application is made to the seedsman, horticulturist, or nurseryman. We do not select the best melons or peaches, cabbages or cauliflowers, carrots or turnips, for propagation, by the plumpness, colour, or the peculiar formation of their seed; but, rather from the flavour, or outward appearance of that part which determines their respective value. The same remark will apply to the fibre of Cotton; it is impossible to test its superiority, by the different appearances which the seed may assume. Some seed, which is sound, clean and black, produces an inconsiderable quantity of coarse Cotton; the pod affording little less than seed. Again, I have seen one stalk, indeed one pod, produce three or four differently marked seeds. It *was* the general impression, that the clean, black seed was the best:—*now*, it seems, an opposite opinion prevails; the seed covered with wool being esteemed the better for producing fine Cotton. This opinion, if correct, will go far in accounting for the great deterioration of the article, complained of by the spinners; this being the seed hitherto rejected, under the impression that it produced inferior, as well as unproductive Cotton. Some of the finest Cotton I have seen, grew in Persia; its seed bears a strong resemblance to the green seed which produces our *upland* Cotton, it being covered with a green wool similar to that. Some foreign, coarse, woolly seed, have, after three or four years' cultivation in this country, become clean, black seed, and produced Cotton of fine fibre, partially retaining its original nankeen colour. From some of the finest Cotton I have raised, (and it was pronounced by purchasers and spinners to be very superior,) the seed was clean and black, without a particle

of wool. Again, I have seen a fine, long and strong Cotton produced from seed, which would readily be pronounced the green seed of the upland Cotton. I have been thus particular, to show, as far as I have learned from experience, that no rule can govern us in the selection of seed, by its outward appearance, best adapted to the producing of superior Cotton.

"A Broker, of considerable judgment, in Liverpool, to whose liberality and candour I am much indebted, assures me, in a letter, dated 30th December, 1826:—"That a superior Cotton to any produced on your shores, is much wanted by our finest spinners." A very respectable Broker, in Glasgow, observed, "a superior Cotton is much wanted, and, that price is only a secondary object to the dealers in this valuable quality of your staple produce." One of the writers previously referred to, remarks, "We have never regretted the purchase of really fine Cotton; and, although competition renders it necessary for us to purchase our Cotton as cheaply as possible, yet we shall always feel a pleasure in adequately remunerating the growers of a really superior article;"—he further adds, that "it cannot be too strongly urged on the Planter, the necessity of enclosing in each bag, a card or two, containing his address;" his reasons in favour of this procedure, I have previously laid before our Society.

My Cotton is always fanned, both before and after ginning, by passing it through a machine adapted to the purpose, to separate from it, as far as practicable, all dirt or other extraneous matter.

"My lands are surrounded by rivers and creeks, and are contiguous to the ocean. Of the soil planted in Cotton, one portion is alluvial, and the other is high, light and sandy.

"The most laborious part of the work, on each plantation, is principally performed by oxen. Of these patient and frugal animals, I cannot speak in too high terms. Their economy and usefulness to the Southern low-land Planter, are not duly appreciated. They, in effect, cost the attentive farmer no money; their food is of the simplest kind, such as straw, moss, cured potato vines, pea-shells, blades, hay, and Cotton seed; these, in a great measure, offals of a plantation, will support them at hard and constant labour. When regularly worked only part of the day, and then turned out, their own industry, upon a moderately productive pasture, will keep them in good condition for the succeeding day's labour. Their food is not as costly or portable as that of mules and horses; hence, dishonest servants find more difficulty in passing it from them into the hands of the illegal trafficker in grain. Boys and girls drive them more humanely and better than grown persons. Their gear, originally a trifling cost, will outlast the oxen.

"This is a fit opportunity to state the success I have had in the use of Mr. Smith's *Virginia Cotton Planter*. About fifty acres of my field were planted with it, as an experiment, by one hand

and a mule, at the rate of from eight to twelve acres per day, according to the speed of the animal; the Cotton came up about thirty hours sooner and more regularly than that which was planted with the hoe; the latter, I had to supply twice, through the carelessness of the hands in dropping too little seed, and covering it irregularly; the former did not need any supplying. I am so satisfied with the merits of the machine, that henceforth I shall invariably use it, where stumps or other obstacles do not interfere. With great respect, I remain your's,

JOHN R. MATHEWES.

To WHITEMARSH B. SEABROOK, &c."

In perusing this letter, we perceive some very valuable instructions, on the proper application of labour in the Cotton-field; and some statements and remarks which are highly interesting to the scientific Planter. We were particularly struck with the amount of persevering labour by which some of Mr. M's most productive and profitable lands have been raised from comparative sterility, to their present condition. If all Planters on the sea-board, who complain of light, barren soil, would follow this example, and apply 120 loads of salt-mud, and 30 of stable manure to each acre, their complaint would soon cease. This single fact sufficiently proves, that all may have abundant crops who will go to the expense of manure, and toil, and patience, necessary for their production.

On the whole, we cordially and earnestly recommend this letter, and the other letters accompanying the Report, as well as the Report itself, to the particular attention of our friends and patrons; under the full impression, that the interests of Agriculture have already been, and will continue to be, essentially benefitted by this singularly valuable publication.

SELECTIONS.

ART. I.—Sugar.

[FROM THE GEORGIA JOURNAL.]

Copy of a Letter addressed to Robert R. Harwell, Esq. of Jackson, Alabama.

*Dear Sir,—*I returned last night from Attakapas, after an absence since early in May last, west of the Mississippi, in Arkansas and Louisiana. Having passed some time at

the house of a friend and relative in Attakapas, I had the best opportunity of seeing the process of manufacturing Sugar, and the cultivation of the Cane, and was much delighted with it. Those who are engaged in this business, are thriving, and the value of their lands constantly improving; in confirmation of this, there have been in Attakapas, three hundred additional Sugar works erected. From those circumstances I am determined to advise my friends and acquaintances, and endeavour to urge them to the culture of the Sugar Cane, and that without delay. Had I not heard you were from home, I should have called on you to-day. As you have fine lands for the business, I am sure you will profit by information on the subject. It is only necessary to have correct information, to induce every one living south of latitude thirty-three, who have good lands, or who can get them, to make Sugar. The business is healthy, the labour far less than in the Cotton crop, and Cane as easily cultivated as Corn, after it is planted. The crop is finished early in June, like Corn, and you have leisure, during the heat of summer, and till October or November, when they begin to cut, grind, and boil. This last, takes four weeks or more, and is viewed rather as a frolic, desired by the hands, than dreaded. There is a great error in public opinion, where they are unacquainted, that it takes a large capital and a great number of hands to make Sugar. A man last season, in Lafourche, with the assistance of two little sons, ten and eleven years of age, and a negro girl about the same age, made Sugar, which he sold for \$2250, clear of all expenses; but, as is customary, there is some help to cut, grind, and boil, (which has to be carried on all at once, to keep the juice from souring,) and the molasses more than paid expenses. The same man made the rollers to grind, of *live oak*,—and his whole expense, besides the kettles, did not exceed \$30.

Two brothers this season, in Attakapas, with their own labour, (being opposed to slave labour,) made 20 acres of Creole Cane, which will make 26 or 40 hogsheads of Sugar. They were entirely done grinding when I left there, and I understand they will over-pay for help to harvest, with the molasses. Their profit will amount at least to \$2500. But these are particular cases; one hand can, and does, in ordinary cases, cultivate four acres with ease, besides corn and other necessities. One acre of good Creole Cane will

make two hogsheads of Sugar, of 1000 lbs. each, which, at 7 cents per lb. is worth \$140. Four acres, 8000 lbs. \$560. From the best information I could get, \$500 to the hand is the common product. As to the success of the Cane in this part, it is beyond doubt. I saw Cane of three kinds, viz. the Ribband, the Creole, and the Owhyhee, well matured in September, at Judge Bry's, in Onachita, in the latitude 32 30. It has matured wherever tried, south of latitude 33, from South-Carolina to Louisiana. Since, at this place, I have seen a fair sample of the Ribband-Cane, on the farm of Samuel B. Shields, Esq. on the back of the Tombeckbee, within fifty paces of the Federal road from Washington to New-Orleans; the seed or stalks from which this cane grew, Mr. Shields tells me, were sent to him by his now deceased brother, Thomas Shields, from New-Orleans. There were three flour barrels of the slips of the seed-cane. It was planted on the 15th March last; from mis-information, too shallow, and too thick, or close. The ground was cleared in 1812, and never manured, was broken up and planted in drills, the cane laid laterally; after planting it was not ploughed but chopped over twice. The Cane was sufficiently matured to cut early in November: Mr. Shields tells me, he has counted and cut as many as 14 stalks from one single eye or joint, and from 10 to 18 joints in each *stalk*. From the product of this little spot, he has planted, at least, two acres. From the uncommonly warm weather, it is now coming up, that is, sprouts from the stubble, or ratoon, as the Sugar Planters call it. I have seen a few stalks of this Cane, that are within a few paces from whence I write, which were left standing, to see the effect which frost might have on it, *and to give to friends*. I have examined it closely, and believe it equal to any Ribband-Cane I saw in Louisiana.

The Ribband-Cane is sold this season at Attakapas for seed, as it stands in the field, at \$200 per acre. The Ribband-Cane is greatly preferred every where to the Creole, or any other kind; it is larger, and makes from three to four hogsheads per acre, grows further north, and matures at least one month earlier. It is smooth, without those annoying prickles on the leaves of the Creole-Cane, and is not injured so much as the latter, by being blown down by storms, as it will ripen after it has fallen on the ground. All are trying to get the Ribband-Cane for seed. As I

believe this to be a most important subject, and the culture to be the most likely to promote the interest and prosperity of the southern part of the United States, and is so little understood, I will give such details of the culture and manufacture of Sugar, as my opportunity and time will permit.

The Cane should be planted in a rich, dry soil, such as where the common Cane grows. If the soil is wet, or subject to inundation, it should be levelled and ditched, to keep it dry. If the land has been cultivated in Corn or Cotton a year or two, the better; though worn out land is not good. It is ploughed deep in the fall or winter, and prepared as for Cotton; drills three or four feet apart; some plant the Cane as they cut it in the fall, and cover it deep, (six or eight inches,) and remove the earth in the spring, or in February, before it comes up; most persons prefer February. The seed Cane is cut before frost, as the eyes are easily injured by frost. They are put up in a kind of stack, with the butts of the stalks to the ground, and the tops leaning together, till it spreads 20 or 30 feet wide, and the out-sides are covered with earth, as far as the stalks are naked of leaves. When it is planted, the stalks are laid singly along the furrow, and capped as far as the leaves extend beyond the joints. The stalks are about three feet long, of which 70 will plant a row across an acre, and 70 drills to the acre, is 5000 stalks to the acre. When seed is scarce, and you wish to raise seed only, it is planted further apart, (five or six feet.) Sometimes they cut the stalks in two, between each joint, and plant the eyes or joints 12 or 18 inches apart. One acre of seed will plant five or more.

The Cane is a hardier plant than Corn or Cotton, and is not injured by spring frosts, as it does not begin to joint till May; as soon as it gets up high enough, it must be scraped and weeded like Cotton, with the hoe. It is not thinned. It soon gets large enough to plough, when it shades the ground, and defies the weeds, and becomes the most luxuriant crop before fall, that I ever beheld. The rows, three feet apart, become so thick as to be difficult to get through. In June it is laid by, or ceased working, as Corn, and you are at leisure during the summer heat, till October. If you could get seed to plant one or more acres this winter from the Mississippi, I would advise you to do so without fail; you will only regret it if you do not. Suppose you plant one acre the ensuing season, next you will plant five,

and the year after, twenty-five, the work of six hands; but, if you have twelve hands, which, perhaps, is nearer your force, I would advise you to get seed to plant two acres this season, and in 1830 you will have 50 acres of Cane, and can, in that year, begin your works, and make Sugar; 100 or 150 hogsheads worth 7 cents per lb.; 7000 to \$10,000; and this would be the easiest work you ever did. You can go on with Cotton or other business, till you raise a stock of Cane with little hindrance on that account. I will now mention something of the works and process of manufacturing, and conclude this long letter.

It is easier to cultivate more Cane in Attakapas, than they can manufacture. When you have as much Cane as your force can save, it is time to begin the works. A mill to grind, consisting of three cast iron cylinders, fifteen inches diameter, and three feet long, the iron one inch thick; these are fitted up on timber, and set one end in a trough, touching each other. The middle roller extends high enough to fasten to a shaft like a Cotton screw, and turns the other two rollers with cogs. Two or more mules will turn it, and it is fed with six or eight stocks at once, which are pressed flat, joints and all, and the juice runs in a constant stream to a reservoir convenient to the kettles. Four kettles are generally used, of a size to suit the business, as it is found that the same furnace will heat four as well as one. The kettles are of cast iron, shaped like a bowl or basin, generally five or six feet across the top.

The set is one each less than the other; they are placed over a brick furnace, the largest first, into which the juice is put to heat and skim; the least or last, called the Grand or Grainer; they are twice filled and emptied into the Grand.

The first or largest, is called the Battery or heater; here they put about half a pint of slacked lime, each time it is filled up with juice. This is all the process of graining or *liming it*—when they perceive the syrup in the ungrainers is boiled enough, by raising it on the bucket; two persons dip it hastily out with long handled buckets, and immediately fill it, from emptying the other kettles to keep it from burning. Each kettle, from the first, is placed a little higher than the other, to skim off the froth or sap into the first, with a long wooden sword, and wipe it with a brush. The whiteness of the Sugar depends on skimming and keeping it from burning as much as the grain or liming. When the

syrup is dipped out of the Grainer, it is conveyed into an adjoining room into vats or troughs, where it cools and becomes hard. It is then spaded up and put into hogsheads, setting one end over a vat, into which the molasses drains out of the Sugar; some stalks of Cane are put into the hogshead, to lead the molasses. They have greatly improved lately in Attakapas, in graining Sugar; they have the best specimens this season, ever made. I will mention that it is the practice to employ persons acquainted with the business, to superintend the erection of the work, and to manage it the first season. There are plenty of persons anxious for employment that way, on moderate terms.

Some send a hand to attend to the kettles for a season, to learn.

All depends upon getting one acquainted with graining and managing; you will excuse the hasty and crude manner in which this important matter is stated.

When I see you and have leisure, I shall take a pleasure to explain more intelligibly; if all those who could make Sugar, would commence and quit the Cotton business, those who could not make Sugar, would get a better price for their Cotton. Every thing, health, interest, patriotism, and sound policy, are in favour of it. There is no danger of glutting the Sugar market, for our country has too little Cane land, to supply the growing demand, which increases faster than the population. The Tariff of three cents per pound is ample protection.

JAMES M'COY.

Note. The subject of the Cultivation of the Sugar-Cane is one of great and increasing importance to the Southern Planter; and the above letter certainly places it in a very interesting and inviting light. Did no other cause operate, yet the great profit said to be yielded by each acre, would be a sufficient inducement for all such as are favourably situated, to engage in its cultivation at once. But to this is to be added, the great decline in the price of one of the principal articles of export from the South, viz. Cotton. At the present prices, that Planter is fortunate who is able to make even a moderate interest on his capital. To many its cultivation is a losing business; and we all are now

anxiously looking around for some article to substitute in its place, which will, if it does not altogether supplant, will, at least, have a tendency to draw off some of the capital now employed in its culture, and leave those who are not thus fortunately situated, a better chance of continuing it with some profit. To many, the Sugar-Cane offers every inducement to make them abandon the culture of Cotton. How far north this plant can be cultivated, is yet a matter of doubt, and will require many experiments to ascertain. It can certainly be cultivated in all the lower part of Georgia, and is cultivated in this State, in several parts of Beaufort District, though we understand that there it is only raised for the feeding of cattle. We are not informed whether any experiments have *of late years* been made, to ascertain whether it would not make Sugar; nor are we informed what variety of Cane has been cultivated; for it appears that much depends on a judicious selection. Mr. M'Coy informs us in the above letter, that he saw "the Ribband, the Creole, and the Owhyhee Canes well matured in September, at Judge Bry's, in Onachita, in latitude 32 30." And again, that "it has matured wherever tried, south of latitude 33, from South-Carolina, to Louisiana." Here are two facts to which we wish to draw the attention of our Planters; the first is, that three varieties of the Sugar-Cane has been successfully cultivated in the interior of one of our States, in latitude 32 30; and the second is, that these Canes "became well matured," in September. Now, we doubt very much, whether the neighbourhood of Charleston, will not be found warmer, although a little farther north, owing to its locality, being situated on the borders of the ocean. If this be the case, what will hinder all, desirous of embarking in, at least, making a small experiment to ascertain these facts. But these Canes matured in September, and we have generally no frost in the vicinity of the Sea-board until November, sometimes not until the last of November; and, it is thought by many, that a white frost does not injure that which is intended for Sugar, although all intended for seed must be carefully guarded from frosts of any kind. Now, if it be true, that our temperature is equal to that of latitude 32 30 in the interior, we can see no reason why our Planters should not embark in its cultivation; but even supposing that our climate is colder, which we much doubt,

yet, these Canes were matured in September; and did it mature with us in October, it would answer as well; and surely there cannot be any great difference between our respective climates. We are aware, that a few years ago, a few Planters attempted its culture in the neighbourhood of Charleston, but we believe that they never gave it that attention which it merited, and they certainly did not attempt the making of Sugar even on a small scale. Unfortunately, the high prices of Cotton which at that time rose from a depressed to a most extravagant price, induced them to abandon the Cane, and we believe it has never since been tried. During the last summer, we saw it growing most luxuriantly in one of our public gardens, (Tivoli;)—we know not, however, the result, but will endeavour to ascertain and make them known in some future number. One thing particularly deserving of notice is, that the Ribband-Cane will mature farther north, and a month earlier than any other, and also is the most productive. This Cane has been but lately introduced, and we believe that all experiments made with us, have been with the common varieties of the Cane. Many are discouraged from attempting the culture, by the expense of the works necessary to carry on the making of Sugar, but these have been simplified, and are not so expensive as formerly, and we have in our possession, a plan which is very simple and of little cost. We have brought this subject before our Planters, in order that they may consider well on it, before the time for planting the next crop arrives; and may prepare themselves by obtaining the necessary kind and quantity of seed. It is too late, this season, to make any trial of it; but we most earnestly recommend the subject to our Planters, and hope that some, at least, will make the experiment, even if it be on a very small scale: and we hope, moreover, that such as may be made, whether favourable or otherwise, will be communicated to us for insertion in this Journal. We have other pieces giving valuable information on the subject, which we shall hereafter lay before our readers.—*Ed. So. Agriculturist.*

ART. II.—*Spring Work.*

[FROM THE NEW-ENGLAND FARMER.]

Mr. Preston, of Stockport, Pa. recommends setting posts, with the top part placed in the ground; and intimates that they will, in that position, last three or four times as long as when the butts are placed down. The same judicious and experienced agriculturist advises, in making fences, always to place the rails with the heart side up. The posts should be set at least two feet in the ground. If those parts of the posts which are to be placed in the ground, are burnt in a hot fire till quite black, they would last much longer than they would otherwise. Some farmers cut their posts so long, and mortise them in such a manner, that when the lower ends have become rotten, they can turn them upside down, and it is said that they will last nearly as long again when managed in that manner.

Get your agricultural implements, such as ploughs, harrows, carts, hoes, &c. in readiness for use. These you have doubtless kept under cover during the winter, and they will last longer if they are painted or covered with some suitable composition. "Dr. Lewis," says the Domestic Encyclopedia, "advises all wood that is exposed to the inclemency of the weather, to be coated with a preparation of pulverized pit-coal and melted tar, reduced to the consistence of paint, which he has found by experience to be very efficacious." Covering wood repeatedly with train oil, or other greasy substance, will have a tendency to preserve it. Or, if more convenient, use some cheap sort of paint, such as Spanish brown, or red ochre. Where machines are necessarily exposed in the field, a great part of the season, they require to be new painted at least every second year. This applies as well to the iron as wood, which should be kept coated with paint or oil as far as practicable.

Particular attention should be paid to your cattle, especially to cows which have lately calved, or are about to calve. If cows are lean when calving, no management afterwards will bring them to yield, for that season, any thing like the quantity of milk they would have yielded, had they been kept in good condition during the winter, and early in the spring. The Germans in Philadelphia, who supply the

market with milk, regularly feed their cows at midnight with short feed, during the winter. The disease called the hollow horn, or horn distemper, is owing to scanty feed. Roots, such as sugar-beet, mangel wurtzel, and carrots, should be given them during winter and early in the spring, with their dry food, and they will serve both for food and medicine. The quantity of roots allowed to each cow or ox, should be varied according to circumstances; and the quantity and quality of the dry food consumed by them, and the apparent keenness of the appetite of the animals. Cattle, especially if fed with roots, should have a proper quantity of salt. Some advise to place salt under cover, and to let cattle and sheep always have access to it, and eat as much as their appetites crave. Dr. Cooper, editor of the Philadelphia edition of the Domestic Encyclopedia, says, "a quarter of an ounce of salt per day to sheep, and one ounce per day to cows and oxen, is an allowance ample enough."

PART III.

MISCELLANEOUS AGRICULTURAL ITEMS.

DOMESTIC.

Our winter has passed, and a more extraordinary one few have seen, and many years will pass, in all probability, ere we shall witness another like it. Instead of a cold, blustering season we have had the temperature of spring, and the months of December, January and February have been more like the months of March, April and May, than like those of former years. The last winter was severe in the extreme, and this as if to compensate for it has been as much the contrary, and the month of January has produced the vegetables and fruits of spring and summer. Having noticed these productions in a former number, we will pass them by. Our coldest days have been in the month of March, and the two nights of frost in the first week of the month injured vegetation greatly. On the 16th March, they had a fall of snow at Georgetown, and on the 18th, the weather was very cold here. With these few exceptions have we passed on, and spring has now fairly set in with its genial warmth, and nature has come forth arrayed in all her beauty. Our Planters have commenced their preparations for the ensuing crop—may success attend the labours of the coming year.

Proceedings of the Agricultural Society of St. John's, Colleton.

The Agricultural Society of St. John's, Colleton, met at Rockville,* at 12 o'clock, pursuant to adjournment.

The minutes of the last meeting having been read, the Corresponding Secretary presented a letter from the Agricultural Society of St. Paul's, relative to the death of JOSEPH JENKINS, Sen. Whereupon, on motion, it was

Resolved, That the Agricultural Society of St. John's, Colleton, deeply sympathizes with the Society of St. Paul's, on the occasion of the death of their "friend and associate," Joseph Jenkins, Sen.

Resolved, That the zeal of the deceased in the cause of Agriculture, and his efforts to further the interest of this Society, of which he was an honorary member, while they excited the slumbering energy of his junior labourers, afforded abundant evidence

* Five meetings of the Society are annually held on Edisto Island, and one meeting at Rockville, Wadmalaw, for the greater convenience of the members residing on John's and Wadmalaw Islands.

that age had neither damped the ardour of his mind, nor impaired his patriotic devotedness.

Resolved, That a copy of the foregoing Resolutions be forwarded to the Agricultural Society of St. Paul's.

The President then read the following Circular from the President of the United Agricultural Society of South-Carolina, which was referred to a Committee, consisting of

ROBERT J. TURNBULL,
WILLIAM SEABROOK, Sen.
HUGH WILSON,
DR. EDWARD MITCHELL,

And by request of the Society, the President,

JOHN R. MATHEWES,

(CIRCULAR.)

To the President and Members of the Agricultural Society of

Edisto Island, March 11, 1828.

GENTLEMEN,—From the relation in which I stand to the United Agricultural Society of South-Carolina, it becomes my duty to investigate and point out the means whereby the interest of that Association may be advanced. To accomplish the legitimate design of its establishment, requires an unanimity of action on the part of its immediate supporters, aided by the moral power of public opinion. Insulated efforts, whether in reference to individuals or societies, are well calculated to excite inquiry, but can scarcely effect that fundamental change which it would seem is now necessary to be accomplished, before the husbandry of South-Carolina can be placed on that elevated station to which it aspires. Relying, gentlemen, on your zeal and intelligence in the cause of our common vocation, permit me respectfully to solicit answers as early as your convenience will permit to the following queries:

1. What do you consider to be the prominent evils under which our Agriculture labours, and what their remedies?

2. Would it redound to the prosperity of the State to establish a professorship of Agriculture in the South-Carolina College?

3. Ought the Legislature to encourage the Agricultural interest by the appropriation of money? If so, how, and to attain what specific objects should the money be expended?

The responsibility of my situation; an ardent desire to use my best efforts in promoting the Agricultural weal of the State; the obvious propriety of ascertaining the opinion of our yeomanry on several topics of great moment; and the necessity of asking the patronage of the Legislature, at its ensuing session, in favour of the Society over which I have the honor to preside, are the motives which have dictated this communication.

Respectfully, your obedient servant,

WHITEMARSH B. SEABROOK,
President U. A. S. of S. C.

On motion, it was *Resolved*, That the Committee on Premiums, should they, on inspection, deem it expedient, be authorized to purchase one of the grist mills offered for sale by William M'Creight & Son.

The Chairman of the Committee on Premiums having reported to the Society the list of premiums to be awarded to the successful candidates the ensuing year, a member, with the consent of the Society, suggested to the Committee the propriety of offering a premium of the value of \$100, for the best specimen of the finest Sea-Island Cotton, not less than 100 cwt. The mode of culture, the kind of seed planted, the manure used, and every other necessary information to be afforded by the candidate.

Extract from the Journal.

JOSEPH E. JENKINS, *Rec. Sec'ry.*

Among the extraordinary productions of this precocious season, is an *Artichoke*, which grew in a gentleman's garden beyond Canonsboro'. It is of the finest species, and so large, as not to be put into the crown of a hat without breaking its leaves!—*Charleston Mercury.*

Something Singular.—The present extraordinary season, has brought forth from the Vegetable Kingdom, many curiosities, but nothing more singular than perfect blossoms, (as yet unfolded,) on two Shaddock plants, from the seed planted one year since, and not more than one foot high. These plants may be seen in a garden in this city.—*Savannah Republican.*

The Sun Flower.—The value of this plant, which is easily cultivated, and ornamental to the garden, is scarcely known in most parts of the kingdom. The seed forms a most excellent and convenient food for poultry, and it is only necessary to cut off the heads of the plant when ripe, tie them in bunches, and hang them up in a dry situation, to be used as wanted. They not only rapidly fatten every kind of poultry, but greatly increase the quantity of eggs they lay. When cultivated to a considerable extent, they are also capital food for sheep and pigs, and for pheasants. The leaves, when dried, form a good fodder for cattle; the dry stalks burn well, and afford abundance of alkali, and when in bloom, the flower is most attractive to bees. The properties of this ornamental flower, render it peculiarly valuable in the cottager's garden.—*Northern Whig.*

Silk.—Several pounds of sewing Silk, of an excellent quality, have been offered for sale in Cincinnati, Ohio. This silk was raised in Sandusky, by Mr. William Butler. The soil and climate of Ohio, are said to be very favourable for the growth of the Mulberry Tree and the Silk-Worm.—*New Eng. Farmer.*

Fodder.—The tops of Indian Corn, cut as rye-straw, mixed with potatoes or meal, is recommended as superior to rye-straw, used in the same manner, for fodder. The corn-stalk contains a great quantity of farine substance, and is very nutritive. Cut and scalded with a little bran, they are very good food for milch cows. In the common way, the blades are eaten, and the stalks wasted; but, by adopting the plan recommended, the whole is saved.—*Christian Ad. and Journal.*

Oats for Horses.—Instead of grinding the oats, break them in a mill; and the same quantity will prove doubly nutritious. Another method is, to boil the corn, and give the horses the liquor in which it has been boiled; the result will be, that instead of six bushels in a crude state, three bushels so prepared, will be found to answer, and to keep the animals in superior vigour and condition.—*Ibid*

To Restore the Germinating Power of Seeds.—The fact deserves to be extensively known, however torpid a seed may be, and destitute of all power to vegetate in any other substance, if steeped in a diluted solution of oxygenated muriatic acid, at a temperature of 46° or 48° of Fahrenheit, provided it still possesses its principle of vitality, it will germinate in a few hours. And if, after this, it be planted, as it ought to be, in its appropriate soil, it will grow with as much speed and vigour, as if it had evinced no torpitude whatever.—*Good's Book of Nature.*

FOREIGN.

A Farm in Chili.—An American in Chili, describes an estate owned by Don Juan Ovalla, about 30 miles from Valparaiso; it is 13 leagues square, (about as extensive as the old county of Hampshire.) Ovalla has upwards of 10,000 head of cattle, and an incredible number of horses, which run wild 11 months in the year. Once in the year they are all brought together, branded; such as are wanted, taken out, and the best turned adrift. The branding of these wild cattle is performed in two minutes. One man throws a lasso over his head, another has him fast by the hind legs, the animal is cast, and the brand applied.—*Hampshire Gazette.*

Gigantic Hydrangea.—We lately mentioned that a gigantic hydrangea was growing in the earl of Roslin's garden, at Dysart House, which measured 40 feet in circumference, and on which there were 605 flowers. A gentleman belonging to this city, was in South Wales on the 8th inst. and in the garden at Amroth Castle; he was equally astonished and delighted with the beautiful and majestic appearance of one of these plants. On examination, it was found to measure 33½ feet in circumference, and on it were found the astonishing number of 832 handsome flow-

ers. There is every probability that this is by far the greatest number of flowers ever seen in this country, on any of these splendid plants growing in the open air.—*London Paper*.

How to destroy Caterpillars in an Orchard.—Plant, according to its size, from one to four plants of bird cherry, (*Prunus Padus*;) almost the whole of the caterpillars and butterflies within one or two hundred yards will resort to that plant. The appearance of the bird cherry will be hideous, but the fruit trees will be safe.—*Agricultural Journal of Bavaria*.

Cochineal trees and insects have been taken on board the French frigate l'Aurore, at Cadiz, to be transplanted in Senegal where the French Government have a design to introduce them. The custom-house opposed their exportation, as much expense and trouble had been incurred in obtaining them from Mexico; but they were permitted to be taken away.—*French Paper*.

Preservation of Grain, &c. from Mice.—Mr. M'Donald, of Scalpa, in the Hebrides, having, some years ago, suffered considerably by mice, put at the bottom, near the centre, and at the top of each stack or mow, as it was raised, three or four stalks of wild mint, with the leaves on, and never after had any of his grain consumed. He then tried the same experiment with his cheese, and other articles kept in store, and often injured by mice, and with equal effect, by laying a few leaves green or dry, on the article to be preserved. From these results it must be inferred, mice have an antipathy to the smell of mint; if so, it may be worth experiment to scatter a few drops of oil of peppermint in pantries, and places where they frequent, as the effect will probably be the same.—*Min. Jour*.

Palo de Vaca, or Cow Tree of the Caraccas.—A phial of the milk of this tree, together with a few leaves and a portion of the root, has been sent to A. B. Lambert, Esq. by Mr. David Lochart, curator of the botanic garden in Trinidad. The milk is obtained by making a spiral incision into the bark of a tree, which attains very large dimensions. The one from which Mr. Lochart obtained the milk, was one hundred feet from the root to the first branches, and stood about fifty miles east of La Guayra, in the Caraccas. Mr. Lochart drank a pint of the milk, and found it tasted like cream, with an agreeable smell. He procured some young trees, and is now endeavouring to increase them in Trinidad. Mr. Don found the milk sent to Mr. Lambert to have the appearance of sour cream, and to be by no means disagreeable. The tree he considers as evidently related either to *Ficus* or *Brosimum*.—*London Paper*.

AGRICULTURAL WORKS.

NEW-YORK FARMER, and HORTICULTURAL REPOSITORY. This Work is published monthly, at New-York, of from 24 to 32 pages, at 3 dollars in advance, and is under the patronage of the New-York Horticultural Society. From the specimens we have seen of it, we think it bids fair to be a highly useful Work. The N. Y. Hort. Society we believe the oldest, if not the only one in existence in the United States; and, from the high standing of many of its Members, we anticipate much. They have already done much to improve the state of Horticulture around New-York; and their transactions, we hope, will be given to the public through this Work.

FLEMING'S BRITISH FARMER'S MAGAZINE, London. Price 4s. The Farmer's Magazine, formerly published in Edinburgh, has ceased, and the present Work has been undertaken by Mr. Fleming, the former editor of an Agricultural Paper. It is published quarterly, and devoted exclusively to Agriculture, in which it is well supported.

OBSERVATIONS on the EMPLOYMENT of SALT in AGRICULTURE, and HORTICULTURE, with Directions for its Application, founded on Practice. By Cuthbert William Johnson. London Pamphlet, p. 16, 3d Edition. 6d.

TEN MINUTES' ADVICE to my NEIGHBOURS, on the USE and ABUSE of SALT as A MANURE; with Directions for its Application in Gardens, Lawns, and Pleasure Grounds. By William Collins, Esq. Exeter. Pamph. 4th ed. 1s.

There is a considerable discussion carried on in England at present, on the Application of Salt as a Manure, and the two above Pamphlets have been written in support of the use of it. Those who may wish to make use of Salt as a Manure, should, if possible, consult these Pamphlets on the subject. Much depends on the proper quantity and time of application, and many experiments have failed, and, in some instances, crops have been injured by the injudicious use of this Manure. When at another time, and in a different quantity, the result has been highly satisfactory.

ERRATA IN No. 3, FOR MARCH.

- Page 113, last line—for "*ascribed to the,*" read "*ascribed the.*"
 " 114, line 4—for "*water,*" read "*liquor.*"
 " " line 11—for "*formation,*" read "*fermentation.*"
 " 115, line 21—for "*wild plant,*" read "*weld plant.*"
-